**MATH STANDARDS: REQUIRED FLUENCIES AND CLUSTERS**

**7**

A PACIFIC UNION CONFERENCE CORRELATION OF NAD AND CCSS

Required fluencies are the skills to be mastered at this level. Clusters define where students and teachers should spend a large majority of their time in order to meet the expectations of the standards. Each fluency/cluster is linked to the corresponding NAD and Common Core Standard. The teacher will notice the NAD Standards are summarized and the Common Core standards provide an extensive explanation of the standards.

 **Color Key:** Major Clusters Supporting Clusters Additional Clusters

 Common Core State Standards (CCSS) North American Division Standards (NAD)

| **Fluencies / Clusters** | **Big Ideas Correlation** | **Assessment Dates** | **Notes****(Struggling students, additional resources & ideas, etc.)** |
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| **Required****Fluencies** | Add, subtract, multiply, and divide rational numbers.([NAD 7.NO.1](http://adventisteducation.org/downloads/pdf/Elementary%20Math%20Standards%20Numbers%20and%20Operations.pdf)) ([CCSS 7.NS.1-3](http://www.corestandards.org/Math/Content/7/NS/)) | Section 1.2, 1.3, 1.4, 1.5, 1.6, 2.1, 2.2, 2.3, 2.3b |       |       |       |
| Solve multi-step problems with positive and negative irrational numbers.([NAD 7.OAT.2](http://adventisteducation.org/downloads/pdf/Elementary%20Math%20Standards%20Operations%20and%20Algebraic%20Thinking.pdf)) ([CCSS 7.EE.3](http://www.corestandards.org/Math/Content/7/EE/)) | Section 1.1, 1.2, 1.3, 1.4, 1.5, 2.1, 2.2, 2.3, 2.4, 2.5, 2.6, 2.6b, 4.1, 4.2, 4.3, 4.4 |       |       |       |
| Solve equations px + q = r and p(x + q) = r.([NAD 7.OAT.2](http://adventisteducation.org/downloads/pdf/Elementary%20Math%20Standards%20Operations%20and%20Algebraic%20Thinking.pdf)) ([CCSS 7.EE.4](http://www.corestandards.org/Math/Content/7/EE/)) | Section 1.1, 1.2, 1.3, 1.4, 1.5, 2.1, 2.2, 2.3, 2.4, 2.5, 2.6, 2.6b, 4.1, 4.2, 4.3, 4.4 |       |       |       |
| **NUMBERS AND OPERATIONS (NAD) / RATIOS AND PROPORTIONAL RELATIONSHIPS (CCSS)** |
| Analyze proportional relationships and use them to solve real-world and mathematical problems. ([NAD 7.NO.4](http://adventisteducation.org/downloads/pdf/Elementary%20Math%20Standards%20Numbers%20and%20Operations.pdf)) ([CCSS 7.RP.1-3](http://www.corestandards.org/Math/Content/7/RP/)) | Section 3.1, 3.2, 3.3, 3.4, 3.5, 3.6, 3.7, 3.7b, 3.8, 4.1, 4.2, 4.3, 4.4 |       |       |       |
| **NUMBERS AND OPERATIONS (NAD) / THE NUMBER SYSTEM (CCSS)** |
| Apply and extend previous understandings of operations with fractions to add, subtract, multiply, and divide rational numbers.([NAD 7.NO.1-2](http://adventisteducation.org/downloads/pdf/Elementary%20Math%20Standards%20Numbers%20and%20Operations.pdf)) ([CCSS 7.NS.1-3](http://www.corestandards.org/Math/Content/7/NS/)) | Section 1.2, 1.3, 1.4, 1.5, 1.6, 2.1, 2.2, 2.3, 2.3b |       |       |       |
| **OPERATIONS AND ALGEBRAIC THINKING (NAD) / EXPRESSIONS AND EQUATIONS (CCSS)** |
| Use properties of operations to generate equivalent expressions.([NAD 7.OAT.1](http://adventisteducation.org/downloads/pdf/Elementary%20Math%20Standards%20Operations%20and%20Algebraic%20Thinking.pdf)) ([CCSS 7.EE.1-2](http://www.corestandards.org/Math/Content/7/EE/))  | Section 2.5b, 4.3 |       |       |       |
| Solve real-life and mathematical problems using numerical and algebraic expressions and equations.([NAD 7.OAT.2](http://adventisteducation.org/downloads/pdf/Elementary%20Math%20Standards%20Operations%20and%20Algebraic%20Thinking.pdf)) ([CCSS 7.EE.3-4](http://www.corestandards.org/Math/Content/7/EE/))  | Section 1.1, 1.2, 1.3, 1.4, 1.5, 2.1, 2.2, 2.3, 2.4, 2.5, 2.6, 2.6b, 4.1, 4.2, 4.3, 4.4 |       |       |       |
| **GEOMETRY (NAD / CCSS)** |
| Draw, construct and describe geometrical figures and describe the relationships between them.([NAD 7.GEO.1](http://adventisteducation.org/downloads/pdf/Elementary%20Math%20Standards%20Geometry.pdf)) ([CCSS 7.G.1-3](http://www.corestandards.org/Math/Content/7/G/))  | Section 5.1, 5.2, 5.3, 5.4, 5.4b, 5.5, 5.6, 5.7, 6.1 / Topic 2 |       |       |       |
| Solve real-life and mathematical problems involving angle measure, area, surface area, and volume.([NAD 7.GEO.2](http://adventisteducation.org/downloads/pdf/Elementary%20Math%20Standards%20Geometry.pdf)) ([CCSS 7.G.4-6](http://www.corestandards.org/Math/Content/7/G/))  | Section 6.2, 6.2b, 6.3, 6.4, 6.5, 6.6, 7.1, 7.2, 7.3, 7.4, 7.5, 7.6 / Topic 1 |       |       |       |
| **DATA ANALYSIS, STATISTICS, AND PROBABILITY (NAD) / STATISTICS AND PROBABILITY (CCSS)** |
| Use random sampling to draw inferences about a population.([NAD 7.DSP.1](http://adventisteducation.org/downloads/pdf/Elementary%20Math%20Standards%20Data%20Analysis%20Statistics%20and%20Probability.pdf)) ([CCSS 7.SP.1-2](http://www.corestandards.org/Math/Content/7/SP/))  | Section 8.1, 8.2, 8.3, 8.4, 8.4b |       |       |       |
| Draw informal comparative inferences about two populations.([NAD 7.DSP. 2](http://adventisteducation.org/downloads/pdf/Elementary%20Math%20Standards%20Data%20Analysis%20Statistics%20and%20Probability.pdf)) ([CCSS 7.SP.3-4](http://www.corestandards.org/Math/Content/7/SP/))  | Section 8.4b |       |       |       |
| Investigate chance processes and develop, use, and evaluate probability models.([NAD 7.DSP.3](http://adventisteducation.org/downloads/pdf/Elementary%20Math%20Standards%20Data%20Analysis%20Statistics%20and%20Probability.pdf)) ([CCSS 7.SP.5-8](http://www.corestandards.org/Math/Content/7/SP/))  | Section 9.1, 9.2, 9.3, 9.4 |       |       |       |